Research Progress of Machine Learning and Sensor Technology in Additive Manufacturing

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Deadline for manuscript submissions:
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Message from the Guest Editors

Additive manufacturing (AM) has received increased interest from industry due to its potential benefits of reducing costs and lead time, improving manufacturing sustainability, and reducing CO_2 emissions. However, a number of challenges stem from not only the complexity of manufacturing systems, but also from the demand for increasingly complex and high-quality products. To tackle these challenges, machine learning (ML) technologies play a critical role. These technologies generally require a completed sensor system and novel sensing technology.

The special issues will include theoretical numerical and experimental contributions that describe original research that addresses all aspects of ML research, sensor technology development and application for AM to the context as mentioned above. Potential topics include but are not limited to the following:

- ML methods in DfAM;
- Internet of Things (IoT) for AM;
- ML and sensor technologies in quality control and process optimization for AM;
- Real-time data analytics using smart sensors and ML for AM;
- ML methods for AM sustainability.

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Special Issue

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Message from the Editor-in-Chief

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